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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/816,697

04/05/2004

Richard Scott Bourgeois

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

CHUO, TONY SHENG HSIANG

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

01/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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rosssr@crd.ge.com
parkskl@crd.ge.com

Office Action Summary	Application No. 10/816,697	Applicant(s) BOURGEOIS ET AL.	
	Examiner Tony Chuo	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-24, 26 and 30-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-24, 26 and 30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 19-24, 26, and 30-35 are currently pending. Claims 1-18, 25, 27-29, 36, and 37 are cancelled. The previously stated 112, 2nd paragraph rejection of claims 20 and 25 is withdrawn. However, claims 21 and 22 have not been amended so the 112, 2nd paragraph rejection is maintained. The amended claim 19 does overcome the previously stated 102 and 103 rejections. However, upon further consideration, claims 19-24, 26, and 30-35 are rejected under the following new 102 rejection. This action is made FINAL as necessitated by the amendment.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 21 and 22 recite the limitation "said at least one hollow manifold" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

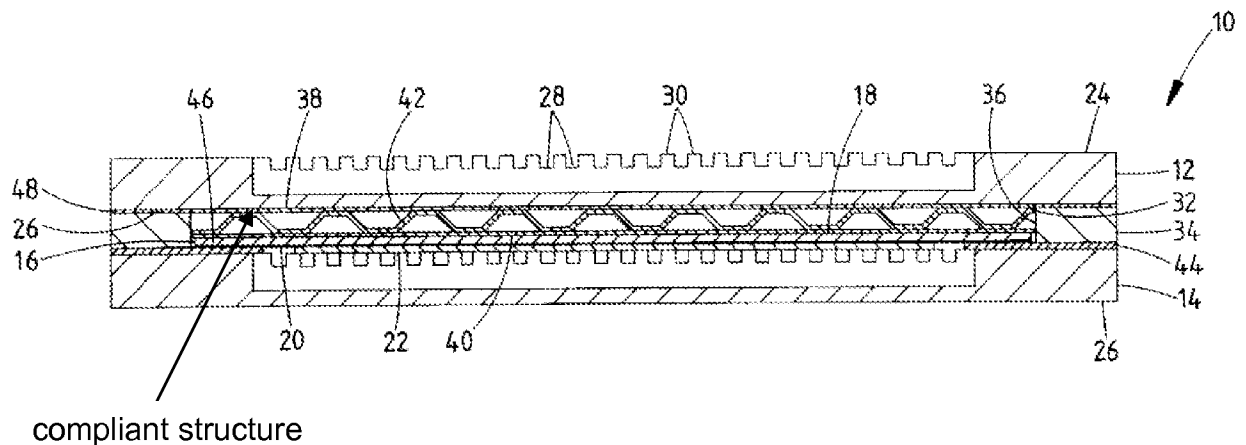
5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 19-24, 26, and 30-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Donelson et al (US 6492053).

Regarding claim 19, the Donelson reference discloses a fuel cell stack comprising: a plurality of planar fuel cell “16” that inherently comprises a first fuel cell assembly and a second fuel cell assembly electrically coupled together such that sealed manifolds extend between the first and second fuel cell assemblies, each fuel cell assembly comprising: a hollow manifold comprising a top wall “34” & “42” and a bottom wall “14”, wherein the hollow manifold includes a fuel gas inlet manifold “54” (sealed fuel passage) and a fuel gas outlet manifold “56” (sealed fuel passage) for allowing fuel to enter and exit the hollow manifold; and a fuel cell “16” comprising an anode “18”, a cathode “22”, and an electrolyte “20” disposed there between, wherein a portion of the top wall “34” of the top wall forms a side wall in direct contact with the fuel cell such that the fuel cell is coplanar with the hollow manifold and wherein a portion of the top wall “42” extending between the fuel cell and the sealed fuel passage forms a compliant structure that is capable of accommodating thermal expansion of the fuel cell in the same plane as the hollow manifold (See Figures 1 and 2 and column 5, line 45 to column 59).

**FIG 1**

Regarding claim 20, it also discloses a cathode flow channel “28” coupled to the hollow manifold of the first fuel cell assembly and the second fuel cell assembly that is configured for directing an oxidant between the first fuel cell assembly and the second fuel cell assembly (See Figure 1, and column 8, lines 9-10).

Regarding claim 21, it also discloses a hollow manifold that is substantially rectangular (See Figure 2).

Regarding claim 22, it also discloses a hollow manifold that further comprises an sheet “40” that is made of nickel which is an electrically conductive material (See column 6, lines 57-59).

Regarding claims 23 and 24, it also discloses a solid oxide fuel cell (See column 5, lines 53-59).

Regarding claims 26, 30, and 31, it also discloses inner sheet “42” (top wall) and interconnect plate “14” (bottom wall) that are both metal and a fuel cell that comprises a

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ceramic material (See column 5, lines 53-67 and column 6, lines 57-59). Since the fuel cell is made of a ceramic material and the top and bottom walls are made of metal, it is inherent that the thermal coefficients of expansion of the fuel cell and the top and bottom walls are different.

Regarding claim 32, it also discloses an interconnect plate "14" (bottom wall) and an inner sheet "42" (top wall) that functions as an interconnect (See column 5, line 64).

Regarding claim 33, it also discloses an inner sheet "42" that acts as an anode interconnect (See column 7, lines 4-8).

Regarding claim 34, it also discloses a compliant structure "42" that is located adjacent to the fuel cell and the sealed passage (See Figure 1).

Regarding claim 35, it also discloses a compliant structure "42" that comprises a corrugated structure (See Figure 1).

Response to Arguments

7. Applicant's arguments with respect to claims 19-24, 26, and 30-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Chuo whose telephone number is (571)272-0717. The examiner can normally be reached on M-F, 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC

/Jonathan Crepeau/
Primary Examiner, Art Unit 1795